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ABSTRACT

This learning module, one of a series of 127 performance-based teacher education (PBTE) learning packages focusing upon specific professional competencies of vocational teachers, deals with using reinforcement techniques. Various aspects of the technique of reinforcement and its use are discussed, including positive reinforcement, negative reinforcement, extinguishing, verbal and nonverbal cues, and use of various instructional materials and approaches to strengthen learning. The module consists of three learning experiences that (1) present vocational teachers with information about reinforcement theory and techniques, (2) allow the teachers to use the techniques in a simulated classroom experience, and (3) require them to apply the techniques in an actual teaching situation. Each learning experience includes some or all of the following: an enabling objective, an information sheet, one or more learning activities, a feedback exercise, model responses to the feedback activity, and one or more reinforcement checklists. (MN)

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Employ Reinforcement Techniques

Second Edition

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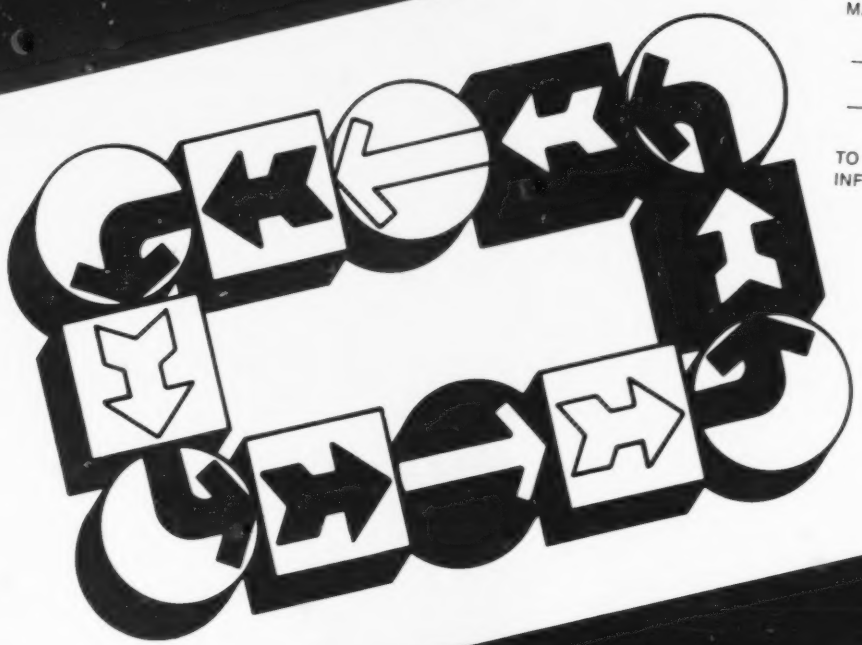

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FOREWORD

This module is one of a series of 127 performance-based teacher education (PBTE) learning packages focusing upon specific professional competencies of vocational teachers. The competencies upon which these modules are based were identified and verified through research as being important to successful vocational teaching at both the secondary and postsecondary levels of instruction. The modules are suitable for the preparation of teachers and other occupational trainers in all occupational areas.

Each module provides learning experiences that integrate theory and application; each culminates with criterion-referenced assessment of the teacher's (instructor's, trainer's) performance of the specified competency. The materials are designed for use by teachers-in-training working individually or in groups under the direction and with the assistance of teacher educators or others acting as resource persons. Resource persons should be skilled in the teacher competencies being developed and should be thoroughly oriented to PBTE concepts and procedures before using these materials.

The design of the materials provides considerable flexibility for planning and conducting performance-based training programs for preservice and inservice teachers, as well as business-industry-labor trainers, to meet a wide variety of individual needs and interests. The materials are intended for use by universities and colleges, state departments of education, postsecondary institutions, local education agencies, and others responsible for the professional development of vocational teachers and other occupational trainers.

The PBTE curriculum packages in Categories A – J are products of a sustained research and development effort by the National Center's Program for Professional Development for Vocational Education. Many individuals, institutions, and agencies participated with the National Center and have made contributions to the systematic development, testing, revision, and refinement of these very significant training materials. Calvin J. Cotrell directed the vocational teacher competency research study upon which these modules are based and also directed the curriculum development effort from 1971 – 1972. Curtis R. Finch provided leadership for the program from 1972 – 1974. Over 40 teacher educators provided input in development of initial versions of the modules; over 2,000 teachers and 300 resource persons in 20 universities, colleges, and postsecondary institutions used the materials and provided feedback to the National Center for revisions and refinement.

Early versions of the materials were developed by the National Center in cooperation with the vocational teacher education faculties at Oregon State University and at the University of Missouri – Columbia. Preliminary testing of the materials was conducted at Oregon State University, Temple University, and the University of Missouri – Columbia.

Following preliminary testing, major revision of all materials was performed by National Center staff, with the assistance of numerous consultants and visiting scholars from throughout the country.

Advanced testing of the materials was carried out with assistance of the vocational teacher educators and students of Central Washington State College; Colorado State University; Ferris State College, Michigan; Florida State University; Holland College, P.E.I., Canada; Oklahoma State University; Rutgers University, New Jersey; State University College at Buffalo, New York; Temple University, Pennsylvania; University of Arizona; University of Michigan–Flint; University of Minnesota–Twin Cities; University of Nebraska–Lincoln; University of Northern Colorado; University of Pittsburgh, Pennsylvania; University of Tennessee; University of Vermont; and Utah State University.

The first published edition of the modules found widespread use nationwide and in many other countries of the world. User feedback from such extensive use, as well as the passage of time, called for the updating of the content, resources, and illustrations of the original materials. Furthermore, three new categories (K–M) have been added to the series, covering the areas of serving students with special/exceptional needs, improving students' basic and personal skills, and implementing competency-based education. This addition required the articulation of content among the original modules and those of the new categories.

Recognition is extended to the following individuals for their roles in the revision of the original materials: Lois G. Harrington, Catherine C. King-Fitch and Michael E. Wonacott, Program Associates, for revision of content and resources; Cheryl M. Lowry, Research Specialist, for illustration specifications; and Barbara Shea for art work. Special recognition is extended to the staff at AAVIM for their invaluable contributions to the quality of the final printed products, particularly to Donna Pritchett for module layout, design, and final art work, and to George W. Smith Jr. for supervision of the module production process.

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Direction is given by a representative from each of the states, provinces and territories. AAVIM also works closely with teacher organizations, government agencies and industry.

MODULE C-13

Employ Reinforcement Techniques

Second Edition

Module C-13 of Category C—Instructional Execution
PROFESSIONAL TEACHER EDUCATION MODULE SERIES

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The Ohio State University

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INTRODUCTION

As human beings, we seek and respond to the approval of others, especially those we identify with or look up to. Approval from someone we admire or respect (whether in the form of a smile or nod, a material gift, or special treatment of some sort) is seen as a reward; disapproval is seen as punishment. We tend to repeat those actions that bring us rewards and to avoid those that bring us punishment from people who play a significant role in our lives.

The vocational-technical teacher is a significant figure in the lives of his/her students. As such, he/she has the ability to encourage desirable behaviors and discourage undesirable behaviors in students through the sensitive and effective use of approval and disapproval—that is, through the use of positive and negative **reinforcement**. The effective use of reinforcement techniques in the classroom creates an atmosphere in which learning is encouraged and strengthened.

This module is designed to help you understand the various types and uses of reinforcement techniques in teaching and to help you acquire skill in applying these techniques in your own teaching.

ABOUT THIS MODULE

Objectives

Terminal Objective: In an actual teaching situation, employ reinforcement techniques. Your performance will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 39–40 (*Learning Experience III*).

Enabling Objectives:

1. After completing the required reading, demonstrate knowledge of the types and uses of reinforcement techniques in teaching (*Learning Experience I*).
2. In a simulated classroom situation, employ or plan for the employment of reinforcement techniques (*Learning Experience II*).

Prerequisites

To complete this module, you must have competency in developing a lesson plan and using oral questioning techniques. If you do not already have these competencies, meet with your resource person to determine what method you will use to gain these skills. One option is to complete the information and practice activities in the following modules:

- *Develop a Lesson Plan*, Module B-4
- *Employ Oral Questioning Techniques*, Module C-12

Resources

A list of the outside resources that supplement those contained within the module follows. Check with your resource person (1) to determine the availability and the location of these resources, (2) to locate additional references in your occupational specialty, and (3) to get assistance in setting up activities with peers or observations of skilled teachers, if necessary. Your resource person may also be contacted if you have any difficulty with directions or in assessing your progress at any time.

Learning Experience I

Optional

References: Selected works on reinforcement by Clark L. Hull and/or B.F. Skinner.

A locally produced videotape of a teacher employing reinforcement techniques that you can view for the purpose of critiquing that teacher's performance.

Videotape equipment to use in viewing a videotaped presentation involving the use of reinforcement techniques.

Learning Experience II

Required

1–5 peers to role-play students to whom you are presenting a lesson involving the use of reinforcement and strengthening techniques, and to critique your performance in employing reinforcement techniques. If peers are unavailable, an alternate activity has been provided.

Optional

A resource person to evaluate your competency in developing a lesson plan.

Videotape equipment to use in taping, viewing, and self-evaluating your presentation.

Learning Experience III

Required

An actual teaching situation in which you can employ reinforcement techniques.

A resource person to assess your competency in employing reinforcement techniques.

General Information

For information about the general organization of each performance-based teacher education (PBTE) module, general procedures for its use, and terminology that is common to all the modules, see About Using the National Center's PBTE Modules on the inside back cover. For more in-depth information on how to use the modules in teacher/trainer education programs, you may wish to refer to three related documents:

The *Student Guide to Using Performance-Based Teacher Education Materials* is designed to help orient preservice and inservice teachers and occupational trainers to PBTE in general and to the PBTE materials.

The *Resource Person Guide to Using Performance-Based Teacher Education Materials* can help prospective resource persons to guide and assist preservice and inservice teachers and occupational trainers in the development of professional teaching competencies through use of the PBTE modules. It also includes lists of all the module competencies, as well as a listing of the supplementary resources and the addresses where they can be obtained.

The *Guide to the Implementation of Performance-Based Teacher Education* is designed to help those who will administer the PBTE program. It contains answers to implementation questions, possible solutions to problems, and alternative courses of action.

Learning Experience I

OVERVIEW

After completing the required reading, demonstrate knowledge of the types and uses of reinforcement techniques in teaching.

You will be reading the information sheet, Reinforcement Techniques, pp. 6–11.

You may wish to read selected works on reinforcement by Hull or Skinner.

You will be demonstrating knowledge of the types and uses of reinforcement techniques in teaching by completing the Self-Check, pp. 11–14.

You will be evaluating your competency by comparing your completed Self-Check with the Model Answers, pp. 15–16.

You may wish to view a locally produced videotape of a teacher employing reinforcement techniques and to critique that teacher's performance.

Activity 1

For information on the types of reinforcement techniques commonly used in the classroom and their use in encouraging desirable behaviors, discouraging undesirable behaviors, and strengthening learning of content, read the following information sheet.

REINFORCEMENT TECHNIQUES

To reinforce means "to strengthen." In education, we use reinforcement techniques to provide students with feedback on the acceptability of their performance and, thus, to strengthen desirable performance and minimize or eliminate undesirable performance. The specific techniques used to reinforce behavior or learning vary, however.

When learning theorists hear the word *reinforcement,* they think of techniques such as **reward** (positive reinforcement), **punishment** (negative reinforcement), and **extinguishing** (elimination of a behavior). These techniques are designed to encourage or discourage behaviors or learning (which is a behavior change).

For example, if a student answers a question correctly in class, you could positively reinforce that response by saying, "That's very good." If a student has a problem staying in his/her seat, you could use positive reinforcement by showing approval when he/she is, in fact, in the seat. You could use negative reinforcement by showing disapproval when the student is out of his/her seat. Or, you could try to extinguish the behavior by ignoring the student when he/she is out of the seat.

In addition, the word *reinforcement* is often used to suggest a technique such as **drill** (i.e., any technique designed to strengthen the student's learning of subject matter or content). For example, if you have a student who has trouble remembering how many pints are in a quart, you could give that student ten problems that require him/her to apply this concept. Through repetition, then, the concept should be mastered. In addition to review and drill, techniques such as audio- and videotape replay, summaries and reviews, and programmed materials are also used to reinforce content learning.

The remainder of this information sheet will discuss each of these specific reinforcement techniques in depth.

Positive Reinforcement (Reward)

A **positive reinforcer** is any action by the teacher that encourages the student to behave in the desired way. Reduced to its most basic form, positive reinforcement (reward) theory states that when a student performs some act, such as giving a correct answer to a teacher's question, and he/she is rewarded for it by the teacher, he/she is more likely to repeat the act in the future.

The **purpose** of the positive reinforcement is to reward the correct behavior that took place immediately before the reinforcement. The **effect** is to make that behavior more likely to recur. As the student repeats the response and is given further rewards, the behavior becomes more firmly established until it is "learned." The more consistently he/she is rewarded, the more readily the student will learn.

Your task is to arrange the situation so that students will seek the available rewards as they proceed in their learning. The reward that you use to facilitate learning must be something the student wants or finds pleasant.

Rewards may take the form of special privileges (e.g., being excused from doing an assignment) or personal approval (e.g., a smile or a word of encouragement). Often, the rewards for learning will come from the reinforcement provided by the learning outcomes. For example, as a student learns how to bake cookies, the finished product of the learning (the delicious cookies) will be the reward.

Keep in mind, however, that the reinforcement must be something that the **student** considers desirable, not necessarily something **you** think is a reward. You may feel, for example, that a perfect score on a quiz is strong reinforcement. However, a student in the class who is eager to work on his/her new motorcycle might consider being excused from an assignment to be a more meaningful reward. Therefore, you must know your students in order to apply effective reinforcement.

As new subject matter is presented, these reinforcements or rewards should be given every time the student responds in the desired way. After the initial learning, you can space out the reinforcements.

Research demonstrates that if learning is to take place, the following four guidelines must be followed: (1) the subject matter must be presented to the student at his/her own level; (2) the subject matter must be presented in a logical sequence; (3) the student must know when he/she is making correct or incorrect responses; and (4) reinforcements must be given as the student gets closer and closer to the defined goal. This indicates that both you and the student must know what the goals are and that the student should be positively reinforced (rewarded) as he/she progresses toward the goals.

Positive reinforcement is by far the most useful and effective type of reinforcement to use while **teaching subject matter**. Consider the following example:

> A cosmetology teacher is attempting to teach a student the correct way to wind hair on permanent rods. The teacher describes and demonstrates. The student tries but winds the hair incorrectly. After several attempts, the student makes a correct curl. The teacher immediately remarks enthusiastically, "That's just right! Do it again."

In this example, the desired behavior is the correct winding of the hair. The reinforcement is provided by the teacher's praise and encouragement. Most students like being told they are doing the task correctly, and this student will probably try to repeat the desired motions until he/she has learned the task perfectly.

Reinforcement must take place **after** the student makes the first contact with new learning, not before. For example, there is not much use in giving your students time off (reward) from class today in the hope that they will memorize the units of measure in the metric system next week.

It is also important that the learning be reinforced **quickly** after it happens—within a few seconds is best. If the student gives the correct answer, you should immediately say something such as "That's right!" or "Very good thinking!" Even a few minutes' interval between the behavior and the reinforcement can make the reinforcement less effective. Sometimes a reward delayed has the effect of no reward at all.

Positive reinforcement, then, is any action that encourages the student to behave in the desired way. You have only a limited variety of reinforcing words, expressions, motions, and rewards available to you; therefore, you must learn to use them well.

The following lists suggest some of the positive reinforcements that you may use in the course of a lesson. Some of these are tangible rewards, such as prizes and small gifts. Others are intangible rewards, such as expressions of approval, physical expressions, or privileges.

Some of these words, phrases, actions, and expressions may seem unnatural or awkward to you, but of course every teacher will need to develop a repertoire of positive reinforcements that suit his/her personal teaching style, student group, and manner of expression. One teacher may say, "That is very clever work," while another will express the same positive reinforcement by exclaiming, "That's dynamite!"

The following are some **spoken words** you could use:

Yes	Correct	Right
Good	Excellent	Terrific
Wonderful	Perfect	Continue
Nice	Beautiful	Remarkable
Okay	Exciting	Exactly
Great	Fine	Super

The following are some **spoken phrases** of approval you could use:

Fine answer	That's clever
Go ahead	That's interesting
All right	You perform very well
Of course	I'm pleased
That's true	Thank you
How true	That shows thought
A good way of putting it	Remarkably well done
Keep going	Well thought out
Good thinking	You're doing better
Good response	You are improving
Right on	That is the best yet

The following are some **nonverbal expressions** of approval you could use:

Looking at the student
Smiling
Nodding
Grinning
Raising eyebrows
Laughing happily
Standing or sitting next to student
Handling student's work individually
Shaking student's hand
Clapping hands
Raising arms
Signaling okay
Cocking head
Thumbs up
Circling hand through air to encourage student to continue
Patting student on the back
Moving toward student to talk to him/her

Other **actions** you can take to show your approval include the following:

Displaying student's work
Asking student to show what he/she is doing
Asking student to explain something to the class
Using student as assistant
Asking student to lead discussion
Appointing student as chairperson of committee
Asking student to work problem on the board
Using student as model of correct performance
Asking student to participate in demonstration
Giving student free time
Awarding student "points" toward a reward

To summarize:

- A positive reinforcer is something that increases the probability of the behavior being repeated. It is usually something the student likes or wants.
- Positive reinforcement must follow the desired behavior, not precede it.
- The reinforcement should follow the student's response immediately or very shortly afterward.
- At first, the positive reinforcement should be given for every correct response, then less frequently.
- The reinforcement must be omitted when the desired behavior does not occur.

Negative Reinforcement (Punishment)

A **negative reinforcer** is any action, taken immediately after the fact, that discourages repetition of undesirable behavior on the part of the student. Negative reinforcement is ordinarily something that the student does not want or will not like. It is punishment.

While the definition given above is not a strictly scientific one, it is useful for the practicing teacher. The **purpose** of this type of reinforcement is to discourage repetition of the behavior that occurred immediately preceding the reinforcement. The **effect** is to make that behavior less likely to recur.

Negative reinforcement may have serious unwanted side effects if used carelessly or insensitively, and you should avoid frequent use of it in instructional settings. There are times, however, when the situation calls for its use. In that case, negative reinforcement should be followed by or coupled with some form of positive reinforcement.

Consider how the teacher in the following example used negative reinforcement and what its effects might be.

The electronics teacher, Ms. Flint, has given her beginning class the assignment of setting up a simple series circuit on their experiment boards. Greg completes his setup and asks Ms. Flint to check it. She looks at the board, immediately disconnects all the components, and hands the whole thing back to Greg with instructions to try again.

In this example, the undesirable behavior was Greg's setting up the circuit incorrectly. The negative reinforcement was Ms. Flint's destruction of Greg's work. The purpose was to discourage Greg from repeating that incorrect experimental setup. Most students enjoy success. Ms. Flint is evidently hoping that Greg will not like the fact that his work was unacceptable to the teacher and that his effort was wasted. She is hoping that he will not attempt the same solution to the assignment but will try another. If Ms. Flint is wise, she will help Greg to achieve the correct solution and then use **positive** reinforcement to speed the learning process.

It can be seen that you must use negative reinforcement very sparingly and carefully. Signs of disapproval—such words as "that was dumb," such facial expressions as grimacing, or such actions as

ridiculing a student in front of the class—are negative reinforcement techniques that can be damaging. They have no legitimate place in the classroom.

Negative reinforcement is a form of punishment, and if you become associated with punishment, your effectiveness will surely be impaired. There is a strong risk that Greg, for example, may begin to avoid attempting to solve laboratory problems and may even skip tomorrow's electronics class. If, however, you have a good, strong relationship with your students, mild negative reinforcement may spur them to greater effort.

The following lists suggest a few negative reinforcers that are sometimes acceptable for use in the classroom. Some **spoken phrases** of disapproval you could use are as follows:

That's not exactly correct
You need to think that through again
Incorrect
Unsatisfactory
You can do better than that

Some **nonverbal expressions** of disapproval are as follows:

Looking disappointed
Shaking head
Frowning

Other **actions** you can take to show your disapproval include the following:

Keeping student after school
Stopping the class and quietly staring at the student
Withdrawing a desired privilege from the student
Giving a poor grade to the student

You have the very difficult task of trying to determine when and how much to reward or to punish students. It is difficult to know what constitutes reward or punishment for the specific student. This must be learned from thoughtful experience and sensitivity to individual students' reactions.

Teachers are often discouraged when the students do not agree with the teachers' own idea of what constitutes reward or punishment. A teacher's complaint that "student's don't care whether they get a grade of *F* or not" indicates that there may be a great difference in value systems between student and teacher.

Again, different cultural and socioeconomic groups respond to different reinforcers, and individuals within groups vary widely in what they perceive to be a reward or punishment. One student might be very pleased to have the teacher praise his/her work in front of the total class. Another student, who values the approval of his/her friends, might be mortified by such attention if good grades were not "in" with this group. Thus, the first student's reward may be the second student's punishment.

Extinguishing

When a student behavior is not followed by any reward or other reinforcement, that behavior is likely to occur less frequently. This kind of "no reinforcement" tends to reduce the behavior to extinction and is, therefore, referred to as **extinguishing**. The most common form of extinguishing is **ignoring** the student behavior concerned. Consider the following example:

> The teacher has asked students to use only correct terminology in referring to tools and equipment—no slang terms are to be used. Frequently, however, students forget and ask for a tool or refer to a piece of equipment using the slang term. When this happens, the teacher simply ignores the student and helps some other student instead. After many days of this, only the correct technical terminology is heard in class.

The extinguishing technique being used in this example is to ignore the student who uses the wrong terminology. The teacher's **purpose** is to eliminate the use of slang terms in the class. The **effect** is to gradually extinguish the behavior of referring to tools and equipment by their slang terms.

It should be noted that extinguishing well-learned behaviors will require time and patience on your part. In fact, the undesirable behavior may actually increase at first as students try desperately to repeat behaviors they previously found reinforcing. Another hazard is that the student who is ignored may find this to be a punishment and may stop trying to participate in the class at all.

Verbal and Nonverbal Cues

The preceding discussion assumes that the teacher is sensitive to the atmosphere in the classroom, alert to students' responses, and able to react verbally and nonverbally to demonstrate his/her approval, disapproval, and enthusiasm. There is increasing research evidence that students actually learn more when their teacher shows personal enthusiasm and energy when presenting a lesson to the class.

There is a striking relationship between **teacher behavior** that is stimulating, imaginative, and physically animated and **student learning**. Gestures, facial expressions, and movement seem to help students comprehend the structure of the lesson, to direct their attention to the important ideas as they occur, and to stimulate attention. They also reinforce desired student behavior by letting students know when you approve of their questions or comments.

It is easier to **feel** that a person is showing enthusiasm than to **clearly describe** that person's actions when he/she is showing it. However, there are some forms of teacher behavior that are generally agreed to be evidence of an enthusiastic and dynamic teaching approach.

For example, you can **walk about** the room during a lesson or **stand in various positions** before the class. You can work at the chalkboard, use the overhead projector, operate apparatus, or hold up objects for class viewing. The students' attention will normally follow you, thus focusing interest on what you want the students to see. You change the scene as you move, breaking the monotony. Moving about tends to indicate that you are excited and energetic.

Head gestures, such as nodding your head to indicate agreement, acceptance, encouragement, or permission, can and should be used often. Shaking your head to show disagreement or refusal should be used more sparingly. **Shoulder movements**, such as shrugging to indicate uncertainty; **arm movements**, such as waving to call on or encourage a student; and **hand gestures**, such as pointing to create emphasis—all these gestures can be used alone or in combination to signal complex reactions. In addition, your **facial expressions**, **vocal inflection**, and **rate of speech** can indicate your reactions to and interest in classroom events.

You can **learn** to convey to students that you are enthusiastic and pleased with their progress. You do not need to feel that teaching in this manner is a gift that some people have and others do not. You can learn the necessary techniques, practice using them, and finally develop a dynamic style of teaching that fits naturally with your own personality and manner. Of course, a false, forced, or excessive kind of behavior is often easily detected and can be more distracting than helpful.

Strengthening Techniques

The effective use of the reinforcement techniques described previously will tend to create a positive atmosphere for learning—to encourage the kinds of behaviors that will enable students to achieve. In other words, it will tend to **strengthen** learning.

There is another set of reinforcement techniques that can be used specifically to strengthen the **learning of content**. These strengthening techniques involve the use of **repetition** or **review** to reinforce learning and help students grasp or retain essential information.

Audio- and videotape replay capabilities have many instructional uses. One of these is to allow the student to repeat the same instruction or content until mastery has occurred. The material may be on a commercial tape or a teacher-made recording, or it may be something that the student has recorded him/herself. In the latter case, the student might record his/her practice sessions, seek feedback (evaluation), and then repeat the procedure, if necessary, until he/she has attained the objective. In any case, it is the repetition that reinforces (strengthens) learning.

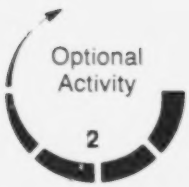
Summaries and reviews allow students to look at material again (either with the same focus or from a different perspective) in order to help them grasp the key concepts and retain them. In summarizing a lesson, for example, you (1) condense the important points covered into a brief summary, (2) review with the students all the important points covered, (3) encourage students to ask questions or express ideas, and (4) use students' responses to reinforce or clarify the important concepts.[1]

1. To gain skill in summarizing a lesson, you may wish to refer to Module C-11, *Summarize a Lesson*.

Programmed materials also provide students with a means for systematic review. This can follow two patterns: (1) review used as a kind of reconditioning to bring old learnings into active use or (2) review used as a summary after instruction provided by more conventional methods. Also, for a student who has been unsuccessful with conventional instruction, programmed learning may prove helpful because of its small steps and immediate reinforcement.[2]

Drills involve the repetition of subject matter until mastery has occurred. Usually, few thought processes are involved in simple practice drills. Therefore, you should exercise caution in assigning simple drills except in those cases in which subject matter needs only to be memorized or to become automatic. For example, memorizing the layout of the type case in graphic arts, definitions of medical terms in health occupations, or shorthand symbols in stenography can best be accomplished through simple drills.

2. To gain skill in using programmed materials, you may wish to refer to Module C-28, *Employ Programmed Instruction*.



For further information on reinforcement techniques, you may wish to read selected works by or about Clark L. Hull or B.F. Skinner, two of the most influential theorists in the area of reinforcement.

The following items check your comprehension of the material in the information sheet, Reinforcement Techniques, pp. 6–11. Each of the nine items requires a short essay-type response. Please explain fully, but briefly, and make sure you respond to all parts of each item.

SELF-CHECK

1. Explain why a particular reward may reinforce learning with one student but not with another.

2. In what way is positive reinforcement related to motivation?

3. How does reinforcement theory apply to classroom instruction?

4. Name three techniques for encouraging and discouraging behavior, and give one example of each.

5. Accept or reject the statement, "Negative reinforcers should be used as often as positive reinforcers in instructional settings." Support your position.

6. Why must a teacher give reinforcement immediately following a desired behavior?

7. Assume that a teacher made the following statements about a given behavior: "That's good! Do it again!" What type of reinforcement is being used, and what assumptions can you generally make about the behavior?

8. Negative reinforcement is somewhat similar to extinguishing. Explain the similarity.

9. How can strengthening techniques be used to facilitate the learning of content?

Compare your written responses to the self-check items with the model answers given below. Your responses need not exactly duplicate the model responses; however, you should have covered the same **major** points.

MODEL ANSWERS

1. Just as there are cultural and socioeconomic differences between groups, there are also differences between people within each group. As a result, people tend to respond differently to different reinforcements. John may be very pleased to have his project displayed by the teacher as an example of good planning and construction, while Larry might become very hostile because the peers in his group do not approve of group members setting an example for the rest of the class.

2. Reinforcement occurs after a learning act and is concerned with motivating a student to want to repeat that act. Therefore, positive reinforcement is a method of motivation that is used after a desirable behavior has occurred.

3. A widely accepted premise in reinforcement theory is the notion that where there is a behavior change, learning occurs. That is, student behavior is learned—it doesn't just happen. Further, it is accepted that behavior can be predicted and modified. This theory has direct application in the classroom. By applying reinforcement principles, the teacher can reward good behavior, encouraging students to repeat it again—and punish or ignore undesirable behavior, discouraging students from repeating the behavior.

4. **Positive reinforcement** is any act by the teacher to encourage a student to repeat desired behavior. For example, after a student gives a correct response to a question posed by the teacher, the teacher immediately responds, "That's very good thinking, John!"

   Negative reinforcement is any act by the teacher to discourage undesirable behavior. For example, a student (Ed) was absent for several days in order to take a vacation in Florida with his parents. The teacher had sent along all the assignments so that Ed would not fall behind. When he returned to class, the activity for that day was to take a quiz on all the material Ed had missed. Ed handed in a blank answer sheet. The teacher marked an *F* on the paper and assigned Ed extra homework until he had caught up on the missed work.

   Extinguishing is the planned absence of any reinforcement. For example, the shop teacher established a rule in class that each student wishing to participate in class discussion must first get permission. Tim was eager to answer a question and started to answer before he got permission. The teacher **ignored** him and recognized another student who had requested permission to speak.

5. Positive reinforcement should be applied much more often than negative reinforcement, because negative reinforcers can be very damaging if not used with caution. Generally speaking, negative reinforcement is something students do not desire. In some cases, depending on the sensitivity of the student, negative reinforcement can have serious side effects. Therefore, for the majority of instructional situations, the statement would not be acceptable.

6. Reinforcement is most effective when it is applied immediately after learning—within a few seconds is best. Since this is a case of desired behavior, the teacher would want to have the best assurance that the behavior will be repeated again. The best assurance, so far as timing of reinforcement is concerned, is to apply it immediately following the desired behavior. In this way, the student is most likely to associate the reinforcement with the desirable behavior.

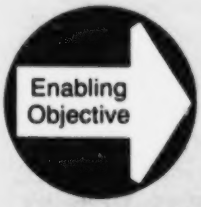
7. In this situation, the teacher **positively** reinforced the student's behavior. In addition, one can make the following assumptions about the behavior:
   - The behavior exhibited by the student was desirable.
   - The probability of the student repeating the behavior is greater.
   - The student will receive frequent reinforcement for the behavior if the teacher wishes it to be learned.
8. Negative reinforcement and extinguishing are similar in that they are both used to discourage undesirable behavior.
9. Among other possible uses, strengthening techniques (e.g., summaries, drills, and audiotape replays) are used to provide the student with opportunities for repeating the same instruction or content until mastery occurs.

Level of Performance: Your written responses to the self-check items should have covered the same **major** points as the model answers. If you missed some points or have questions about any additional points you made, review the material in the information sheet, Reinforcement Techniques, pp. 6–11, or check with your resource person if necessary.

Your institution may have available videotapes showing examples of teachers employing reinforcement techniques. If so, you may wish to view one or more of these videotapes. You might also choose to critique the performance of each teacher in employing reinforcement techniques, using the criteria provided in this module or critique forms or checklists provided by your resource person.

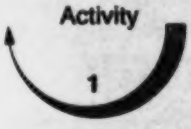
Learning Experience II

OVERVIEW



In a simulated classroom situation, employ or plan for the employment of reinforcement techniques.

NOTE: The next six items involve role-playing with peers. If peers are not available to you, proceed directly to the explanation of the alternate activity that follows.



You will be selecting a student performance objective in your occupational specialty and selecting, modifying, or developing a lesson plan designed to achieve that objective, giving special attention to the use of reinforcement techniques.

You may wish to have your resource person review the adequacy of your plan.

You will be presenting the lesson to a group of peers.

You may wish to record your presentation on videotape for self-evaluation purposes.

Your competency in employing reinforcement techniques will be evaluated by your peers, using copies of the Reinforcement Checklist, pp. 21–32.

If you record your presentation on videotape, you may wish to evaluate your own performance, using a copy of the Reinforcement Checklist, pp. 21–32.

You will be reading the Case Situations, pp. 33–34, and planning reinforcement techniques to use with the students described.

You will be evaluating your competency in planning reinforcement techniques by comparing your completed responses with the Model Responses, pp. 35–36.

NOTE: The following activities involve role-playing with peers. If peers are not available to you, turn to p. 33 for an explanation of the alternate activity.

Select a student performance objective in your occupational specialty and develop a detailed lesson plan for achieving that objective. As part of your plan, develop a series of oral questions to direct and motivate students' thinking throughout the lesson. (The use of oral questioning techniques in your lesson is suggested to ensure that you will have an opportunity to **employ reinforcement techniques** as you **interact** with students during the lesson.) Your plans should also include the use of one or more techniques to strengthen learning of content (e.g., drill, summary) appropriate to the objective you have selected. Instead of developing a lesson plan, you may select a lesson plan that you have developed previously and adapt that plan so that it includes the use of (1) oral questioning techniques and (2) content-strengthening techniques.

You may wish to have your resource person review the adequacy of your plan. He/she could use the Teacher Performance Assessment Form in Module B-4, *Develop a Lesson Plan*, as a guide.

In a simulated classroom situation, present your lesson to a group of one to five peers, applying reinforcement and strengthening techniques as appropriate. These peers should be persons in your occupational specialty who have taken or are taking this module, and they will serve two functions: (1) they will role-play the students to whom you are presenting your lesson, and (2) they will evaluate your performance.

If you wish to self-evaluate, you may record your performance on videotape so you may view your own presentation at a later time.

Multiple copies of the Reinforcement Checklist are provided in this learning experience, pp. 21–32. Give a copy to each peer before making your presentation in order to ensure that each knows what to look for in your lesson. However, indicate that, during the lesson, all attention is to be directed toward you and that the checklists are to be completed **after** the lesson is finished.

If you videotaped your lesson, you may wish to self-evaluate using a copy of the Reinforcement Checklist, pp. 21–32.

NOTES

REINFORCEMENT CHECKLIST

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

	LEVEL OF PERFORMANCE			
	N/A	No	Partial	Full
During the lesson, the teacher:				
1. was alert and responsive to students' verbal and nonverbal cues	☐	☐	☐	☐
2. immediately reinforced (rewarded) positive behavior	☐	☐	☐	☐
3. used reinforcements (positive, negative, extinguishing) that were suitable to students' needs, interests, and abilities	☐	☐	☐	☐
4. used effectively the following nonverbal expressions to show approval or disapproval, as appropriate:				
a. head gestures	☐	☐	☐	☐
b. shoulder movements	☐	☐	☐	☐
c. arm movements	☐	☐	☐	☐
d. hand gestures	☐	☐	☐	☐
e. facial expressions	☐	☐	☐	☐
f. vocal inflection	☐	☐	☐	☐
g. rate of speech	☐	☐	☐	☐
5. used effectively a variety of verbal expressions to show approval and disapproval	☐	☐	☐	☐
6. used effectively the giving or withdrawing of material rewards or privileges to show approval or disapproval	☐	☐	☐	☐
7. overall, indicated interest and enthusiasm concerning the lesson and students' progress	☐	☐	☐	☐
8. used negative reinforcement sparingly	☐	☐	☐	☐
9. used one or more of the following techniques to strengthen content learning:				
a. audio- or videotape replays	☐	☐	☐	☐
b. summaries and reviews	☐	☐	☐	☐

	N/A	No	Partial	Full
c. programmed instruction	☐	☐	☐	☐
d. drills or practice	☐	☐	☐	☐
10. selected content-strengthening techniques on the basis of: a. the lesson objective	☐	☐	☐	☐
b. the individual needs and abilities of students	☐	☐	☐	☐
11. if necessary, explained how to use the equipment, materials, or resources involved in the use of the strengthening technique	☐	☐	☐	☐

Level of Performance: All items must receive N/A or FULL responses. If any item receives a NO or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

REINFORCEMENT CHECKLIST

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Level of Performance: All items must receive N/A or FULL responses. If any item receives a NO or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

Read the following brief case situations. Assuming that this is all the information you have, describe what additional information you would need before deciding what reinforcement techniques would be appropriate. In addition, **plan in writing** the reinforcement techniques you would use in each situation.

CASE SITUATIONS

1. You have a student who consistently neglects to turn in his assignments.

2. You have a student who is constantly conversing with her friends during class.

3. You have a student who behaves well in the classroom but starts acting up the minute he hits the hallway.

4. You have a student who is chronically careless in the laboratory.

5. You have a student who is very shy and, consequently, never contributes orally in class. On this particular day, she finally answers a question.

6. A student tries out for your vocational student organization's debate team, but he presently lacks the skills to make the team.

7. While presenting a lesson one day, it becomes obvious to you that a few of your students haven't mastered essential material that you covered the previous week.

Compare your written responses to the case situations with the model responses given below. Your responses need not exactly duplicate the model responses; however, you should have covered the same **major** points.

MODEL RESPONSES

1. If you have determined that the behavior does not stem from health, family, or study habit problems, then you can assume that the student simply does not want to do his assignments (has other things he'd rather do). For him, the assignment itself is a "negative" activity.

   You might ask yourself whether your assignments are in fact stimulating, creative, and motivating. Assuming that they usually are, and assuming also that even the less exciting assignments have been given for good and valid reasons that the students understand, you will want to eliminate the student's negative behavior and **replace** it with a positive one (i.e., turning in assignments).

   In other words, you could use negative reinforcement to discourage the behavior, then follow with positive reinforcement once the student changes his behavior (i.e., begins to turn in his assignments). For example, you could speak to the student after class and explain that he is in danger of failing the course if he does not turn in tomorrow's assignment.

   At this point, you hope that the negative reinforcement will work and plan a method of **positive** reinforcement to use when he turns in his work in order to encourage him to continue turning in his assignments. You might, for example, praise the student for turning in his work and use his enjoyment of a certain activity (e.g., working on cars) to motivate him to continue (e.g., tell him that, now that he's getting his work done, you'd really like his help in class to demonstrate a particular manipulative skill relating to automobiles).

2. If the student is not emotionally unstable but is simply spirited and likes attention (e.g., class clown), you can try to eliminate this behavior by **not** giving her the response that she finds reinforcing (i.e., attention). That is, you can attempt to extinguish the behavior by **ignoring** it.

   If, however, she continues to be reinforced by the attention of her peers, you may need to use stronger measures. Stopping your presentation and staring at the student until she stops talking may work, unless she finds this sort of attention reinforcing, too. You may need to ignore the behavior during class, then speak to her after class, indicating your disapproval of her behavior (negative reinforcement).

   Then, if she manages to get through a class period without talking out, you could indicate after class how pleased you were with her behavior. If she is a "born leader," you might at this point enlist her help in "keeping the class going," since the other students seem to "look to her for leadership." This sort of positive reinforcement could channel her natural energy in constructive directions.

3. Since this behavior is occurring outside your classroom, rewards or punishments associated with your class generally will not have a very pervasive effect. In other words, he may shape up outside your door but cut up when he is out of your range of hearing or vision. If you wish his hall behavior to improve in general, a different technique will have to be used. Once again, you must know the student before you can take any action.

   It may be that sitting still in class is very hard for this person, so he explodes into the hall. It may be that he likes the peer reaction he gets from his misdeeds. Negative reinforcement in the form of verbal disapproval can be used, but again, this may affect his behavior outside your door only.

   Strangely enough, one good positive technique that may work is to put the offender in a position of authority. For example, if after the verbal disapproval, the student exhibits proper behavior in the hall, he could be asked to be a hall marshall or to get to the room early to help you do some task. Negative reinforcement has only a temporary effect; positive reinforcement can create a permanent behavior change.

4. You need to determine for sure whether the student is careless because of ignorance of good safety practices, because he has trouble concentrating, because he likes making his peers laugh, or because of some other problem. If he knows the rules and has no physical or mental problems that are causing the problem, then probably you should start with a little objective negative reinforcement. After all, this person is endangering his safety and that of others.

   He can be told firmly, but unemotionally, why his behavior is dangerous, and he can also be barred from using the machine (or whatever) for the remainder of the day. Your job then is to meet with him to determine what is causing the behavior and to plan an appropriate technique to reward him immediately if he is careful the next time he uses the laboratory facilities.

5. If this student is so shy that this is the first answer you have gotten from her, strong positive reinforcement could so thoroughly embarrass her that you'd not hear from her again for another semester. You need a reinforcement technique that indicates that you are pleased without calling attention to the fact that her participation is unusual. It would be poor, for example, to say, "See how much you contribute when you make the effort," or "Great, I wasn't sure you had a voice." Something simple and unobtrusive, such as "Good. Thank you," accompanied by warm facial expressions, would be best.

6. Again, you need to know the student and the conditions that motivated him to try out. Did he do it for attention? Did he do it because another teacher recommended that he try? Assuming that this is an average student who really is interested in being good enough to make the team, you need to respond in a way that will not discourage him from ever trying out again—a way that will motivate him to gain the skill that he needs in order to make the team.

   Positive reinforcement is probably the best technique to use here. The student should be praised for his interest and effort. Instead of telling him that he is not good enough to make the team, he should be told that, unfortunately, others at this time have more experience and/or skill, but that there certainly will be other chances to try out in the future, and that you hope to see him again.

   One reward that could be used would be to enlist his aid in another capacity. Perhaps, if he is "part" of the team in another capacity, he may be exposed to the skills he needs and will, in fact, make the team later. If it is doubtful that he will ever be capable of making the team, you should still acknowledge his interest and try to reroute it to some area in which he can succeed.

7. There could be any number of reasons why a few students haven't mastered the needed material, but whatever the reasons, some positive action needs to be taken now. It's possible that you did not include summaries in your previous lessons to determine whether students had understood the material and to reinforce the important concepts or information. By involving students in summarizing the lessons, you would probably have discovered earlier that some of your students weren't ready to go on to additional material.

   At this point, you need to provide opportunities for these students to review the material presented in earlier lessons until they have mastered it. Depending on the type of content to be learned and the needs and abilities of these students, you might record the material on audiotape to enable them to replay the tape as often as necessary. Or, you could suggest some drills to help them memorize what they need to know. Or, you could provide them with programmed materials in which the content is presented in small steps.

Level of Performance: Your written responses to the case situations should have covered the same **major** points as the model responses. If you missed some points or have questions about any additional points you made, review the material in the information sheet, Reinforcement Techniques, pp. 6–11, or check with your resource person if necessary.

Learning Experience III

FINAL EXPERIENCE

In an actual teaching situation,* employ reinforcement techniques.

As you conduct your teaching activities, employ reinforcement techniques with your students. This will include—

- employing positive, negative, and extinguishing reinforcement as appropriate during your lessons and in other interactions with students
- employing reinforcement techniques to strengthen the learning of content (e.g., drills, summaries) as part of one or more lessons.

NOTE: Your resource person may want you to submit your written lesson plan(s) to him/her for evaluation before you present your lesson(s). It may be helpful for your resource person to use the TPAF from Module B-4, *Develop a Lesson Plan*, to guide his/her evaluation.

Arrange in advance to have your resource person observe at least one lesson presentation in which you employ reinforcement techniques.

Your total competency will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 39–40.

Based upon the criteria specified in the assessment instrument, your resource person will determine whether you are competent in employing reinforcement techniques.

* For a definition of "actual teaching situation," see the inside back cover.

NOTES

TEACHER PERFORMANCE ASSESSMENT FORM

Employ Reinforcement Techniques (C-13)

Name _____

Date _____

Resource Person _____

Directions: Indicate the level of the teacher's accomplishment by placing an X in the appropriate box under the LEVEL OF PERFORMANCE heading. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

During the lesson, the teacher:	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
1. was alert and responsive to students' verbal and nonverbal cues	☐	☐	☐	☐	☐	☐
2. immediately reinforced (rewarded) positive behavior	☐	☐	☐	☐	☐	☐
3. used reinforcements (positive, negative, extinguishing) that were suitable to students' needs, interests, and abilities	☐	☐	☐	☐	☐	☐
4. used effectively the following nonverbal expressions to show approval or disapproval, as appropriate:						
a. head gestures	☐	☐	☐	☐	☐	☐
b. shoulder movements	☐	☐	☐	☐	☐	☐
c. arm movements	☐	☐	☐	☐	☐	☐
d. hand gestures	☐	☐	☐	☐	☐	☐
e. facial expressions	☐	☐	☐	☐	☐	☐
f. vocal inflection	☐	☐	☐	☐	☐	☐
g. rate of speech	☐	☐	☐	☐	☐	☐
5. used effectively a variety of verbal expressions to show approval and disapproval	☐	☐	☐	☐	☐	☐
6. used effectively the giving or withdrawing of material rewards or privileges to show approval or disapproval	☐	☐	☐	☐	☐	☐
7. overall, indicated interest and enthusiasm concerning the lesson and students' progress	☐	☐	☐	☐	☐	☐
8. used negative reinforcement sparingly	☐	☐	☐	☐	☐	☐
9. used one or more of the following techniques to strengthen content learning:						
a. audio- or videotape replays	☐	☐	☐	☐	☐	☐
b. summaries and reviews	☐	☐	☐	☐	☐	☐

	N/A	None	Poor	Fair	Good	Excellent
c. programmed instruction	☐	☐	☐	☐	☐	☐
d. drills or practice	☐	☐	☐	☐	☐	☐
10. selected content-strengthening techniques on the basis of: a. the lesson objective	☐	☐	☐	☐	☐	☐
b. the individual needs and abilities of students	☐	☐	☐	☐	☐	☐
11. if necessary, explained how to use the equipment, materials, or resources involved in the use of the strengthening technique	☐	☐	☐	☐	☐	☐

Level of Performance: All items must receive N/A, GOOD, or EXCELLENT responses. If any item receives a NONE, POOR, or FAIR response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

ABOUT USING THE NATIONAL CENTER'S PBTE MODULES

Organization

Each module is designed to help you gain competency in a particular skill area considered important to teaching success. A module is made up of a series of learning experiences, some providing background information, some providing practice experiences, and others combining these two functions. Completing these experiences should **enable** you to achieve the **terminal** objective in the final learning experience. The final experience in each module always requires you to demonstrate the skill in an actual teaching situation when you are an intern, a student teacher, an inservice teacher, or occupational trainer.

Procedures

Modules are designed to allow you to individualize your teacher education program. You need to take only those modules covering skills that you do not already possess. Similarly, you need not complete any learning experience within a module if you already have the skill needed to complete it. Therefore, before taking any module, you should carefully review (1) the introduction, (2) the objectives listed on p. 4, (3) the overviews preceding each learning experience, and (4) the final experience. After comparing your present needs and competencies with the information you have read in these sections, you should be ready to make one of the following decisions:

- That you do not have the competencies indicated and should complete the entire module
- That you are competent in one or more of the enabling objectives leading to the final learning experience and, thus, can omit those learning experiences
- That you are already competent in this area and are ready to complete the final learning experience in order to "test out"
- That the module is inappropriate to your needs at this time

When you are ready to complete the final learning experience **and** have access to an actual teaching situation, make the necessary arrangements with your resource person. If you do not complete the final experience successfully, meet with your resource person and arrange to (1) repeat the experience or (2) complete (or review) previous sections of the module or other related activities suggested by your resource person before attempting to repeat the final experience.

Options for recycling are also available in each of the learning experiences preceding the final experience. Any time you do not meet the minimum level of performance required to meet an objective, you and your resource person may meet to select activities to help you reach competency. This could involve (1) completing parts of the module previously skipped, (2) repeating activities, (3) reading supplementary resources or completing additional activities suggested by the resource person, (4) designing your own learning experience, or (5) completing some other activity suggested by you or your resource person.

Terminology

Actual Teaching Situation: A situation in which you are actually working with and responsible for teaching secondary or postsecondary vocational students or other occupational trainees. An intern, a student teacher, an inservice teacher, or other occupational trainer would be functioning in an actual teaching situation. If you do **not** have access to an actual teaching situation when you are taking the module, you can complete the module **up to** the final learning experience. You would then complete the final learning experience later (i.e., when you have access to an actual teaching situation).

Alternate Activity or Feedback: An item that may **substitute** for required items that, due to special circumstances, you are unable to complete.

Occupational Specialty: A specific area of preparation within a vocational service area (e.g., the service area Trade and Industrial Education includes occupational specialties such as automobile mechanics, welding, and electricity.

Optional Activity or Feedback: An item that is not required but that is designed to **supplement** and enrich the required items in a learning experience.

Resource Person: The person in charge of your educational program (e.g., the professor, instructor, administrator, instructional supervisor, cooperating/supervising/classroom teacher, or training supervisor who is guiding you in completing this module).

Student: The person who is receiving occupational instruction in a secondary, postsecondary, or other training program.

Vocational Service Area: A major vocational field: agricultural education, business and office education, marketing and distributive education, health occupations education, home economics education, industrial arts education, technical education, or trade and industrial education.

You or the Teacher/Instructor: The person who is completing the module.

Levels of Performance for Final Assessment

N/A: The criterion was not met because it was **not applicable** to the situation.

None: No attempt was made to meet the criterion, although it was relevant.

Poor: The teacher is unable to perform this skill or has only **very limited ability** to perform it.

Fair: The teacher is unable to perform this skill in an acceptable manner but has **some ability** to perform it.

Good: The teacher is able to perform this skill in an **effective** manner.

Excellent: The teacher is able to perform this skill in a **very effective** manner.

Titles of the National Center's Performance-Based Teacher Education Modules

Category A: Program Planning, Development, and Evaluation

- A–1 Prepare for a Community Survey
- A–2 Conduct a Community Survey
- A–3 Report the Findings of a Community Survey
- A–4 Organize an Occupational Advisory Committee
- A–5 Maintain an Occupational Advisory Committee
- A–6 Develop Program Goals and Objectives
- A–7 Conduct an Occupational Analysis
- A–8 Develop a Course of Study
- A–9 Develop Long-Range Program Plans
- A–10 Conduct a Student Follow-Up Study
- A–11 Evaluate Your Vocational Program

Category B: Instructional Planning

- B–1 Determine Needs and Interests of Students
- B–2 Develop Student Performance Objectives
- B–3 Develop a Unit of Instruction
- B–4 Develop a Lesson Plan
- B–5 Select Student Instructional Materials
- B–6 Prepare Teacher-Made Instructional Materials

Category C: Instructional Execution

- C–1 Direct Field Trips
- C–2 Conduct Group Discussions, Panel Discussions, and Symposiums
- C–3 Employ Brainstorming, Buzz Group, and Question Box Techniques
- C–4 Direct Students in Instructing Other Students
- C–5 Employ Simulation Techniques
- C–6 Guide Student Study
- C–7 Direct Student Laboratory Experience
- C–8 Direct Students in Applying Problem-Solving Techniques
- C–9 Employ the Project Method
- C–10 Introduce a Lesson
- C–11 Summarize a Lesson
- C–12 Employ Oral Questioning Techniques
- C–13 Employ Reinforcement Techniques
- C–14 Provide Instruction for Slower and More Capable Learners
- C–15 Present an Illustrated Talk
- C–16 Demonstrate a Manipulative Skill
- C–17 Demonstrate a Concept or Principle
- C–18 Individualize Instruction
- C–19 Employ the Team Teaching Approach
- C–20 Use Subject Matter Experts to Present Information
- C–21 Prepare Bulletin Boards and Exhibits
- C–22 Present Information with Models, Real Objects, and Flannel Boards
- C–23 Present Information with Overhead and Opaque Materials
- C–24 Present Information with Filmstrips and Slides
- C–25 Present Information with Films
- C–26 Present Information with Audio Recordings
- C–27 Present Information with Televised and Videotaped Materials
- C–28 Employ Programmed Instruction
- C–29 Present Information with the Chalkboard and Flip Chart
- C–30 Provide for Students' Learning Styles

Category D: Instructional Evaluation

- D–1 Establish Student Performance Criteria
- D–2 Assess Student Performance: Knowledge
- D–3 Assess Student Performance: Attitudes
- D–4 Assess Student Performance: Skills
- D–5 Determine Student Grades
- D–6 Evaluate Your Instructional Effectiveness

Category E: Instructional Management

- E–1 Project Instructional Resource Needs
- E–2 Manage Your Budgeting and Reporting Responsibilities
- E–3 Arrange for Improvement of Your Vocational Facilities
- E–4 Maintain a Filing System
- E–5 Provide for Student Safety
- E–6 Provide for the First Aid Needs of Students
- E–7 Assist Students in Developing Self-Discipline
- E–8 Organize the Vocational Laboratory
- E–9 Manage the Vocational Laboratory
- E–10 Combat Problems of Student Chemical Use

Category F: Guidance

- F–1 Gather Student Data Using Formal Data-Collection Techniques
- F–2 Gather Student Data Through Personal Contacts
- F–3 Use Conferences to Help Meet Student Needs
- F–4 Provide Information on Educational and Career Opportunities
- F–5 Assist Students in Applying for Employment or Further Education

Category G: School–Community Relations

- G–1 Develop a School–Community Relations Plan for Your Vocational Program
- G–2 Give Presentations to Promote Your Vocational Program
- G–3 Develop Brochures to Promote Your Vocational Program
- G–4 Prepare Displays to Promote Your Vocational Program
- G–5 Prepare News Releases and Articles Concerning Your Vocational Program
- G–6 Arrange for Television and Radio Presentations Concerning Your Vocational Program
- G–7 Conduct an Open House
- G–8 Work with Members of the Community
- G–9 Work with State and Local Educators
- G–10 Obtain Feedback about Your Vocational Program

Category H: Vocational Student Organization

- H–1 Develop a Personal Philosophy Concerning Vocational Student Organizations
- H–2 Establish a Vocational Student Organization
- H–3 Prepare Vocational Student Organization Members for Leadership Roles
- H–4 Assist Vocational Student Organization Members in Developing and Financing a Yearly Program of Activities
- H–5 Supervise Activities of the Vocational Student Organization
- H–6 Guide Participation in Vocational Student Organization Contests

Category I: Professional Role and Development

- I–1 Keep Up to Date Professionally
- I–2 Serve Your Teaching Profession
- I–3 Develop an Active Personal Philosophy of Education
- I–4 Serve the School and Community
- I–5 Obtain a Suitable Teaching Position
- I–6 Provide Laboratory Experiences for Prospective Teachers
- I–7 Plan the Student Teaching Experience
- I–8 Supervise Student Teachers

Category J: Coordination of Cooperative Education

- J–1 Establish Guidelines for Your Cooperative Vocational Program
- J–2 Manage the Attendance, Transfers, and Terminations of Co-Op Students
- J–3 Enroll Students in Your Co-Op Program
- J–4 Secure Training Stations for Your Co-Op Program
- J–5 Place Co-Op Students on the Job
- J–6 Develop the Training Ability of On-the-Job Instructors
- J–7 Coordinate On-the-Job Instruction
- J–8 Evaluate Co-Op Students' On-the-Job Performance
- J–9 Prepare for Students' Related Instruction
- J–10 Supervise an Employer–Employee Appreciation Event

Category K: Implementing Competency-Based Education (CBE)

- K–1 Prepare Yourself for CBE
- K–2 Organize the Content for a CBE Program
- K–3 Organize Your Class and Lab to Install CBE
- K–4 Provide Instructional Materials for CBE
- K–5 Manage the Daily Routines of Your CBE Program
- K–6 Guide Your Students Through the CBE Program

Category L: Serving Students with Special/Exceptional Needs

- L–1 Prepare Yourself to Serve Exceptional Students
- L–2 Identify and Diagnose Exceptional Students
- L–3 Plan Instruction for Exceptional Students
- L–4 Provide Appropriate Instructional Materials for Exceptional Students
- L–5 Modify the Learning Environment for Exceptional Students
- L–6 Promote Peer Acceptance of Exceptional Students
- L–7 Use Instructional Techniques to Meet the Needs of Exceptional Students
- L–8 Improve Your Communication Skills
- L–9 Assess the Progress of Exceptional Students
- L–10 Counsel Exceptional Students with Personal–Social Problems
- L–11 Assist Exceptional Students in Developing Career Planning Skills
- L–12 Prepare Exceptional Students for Employability
- L–13 Promote Your Vocational Program with Exceptional Students

Category M: Assisting Students in Improving Their Basic Skills

- M–1 Assist Students in Achieving Basic Reading Skills
- M–2 Assist Students in Developing Technical Reading Skills
- M–3 Assist Students in Improving Their Writing Skills
- M–4 Assist Students in Improving Their Oral Communication Skills
- M–5 Assist Students in Improving Their Math Skills
- M–6 Assist Students in Improving Their Survival Skills

RELATED PUBLICATIONS

Student Guide to Using Performance-Based Teacher Education Materials
Resource Person Guide to Using Performance-Based Teacher Education Materials
Guide to the Implementation of Performance-Based Teacher Education
Performance-Based Teacher Education: The State of the Art, General Education and Vocational Education

For information regarding availability and prices of these materials contact—AAVIM, American Association for Vocational Instructional Materials, 120 Driftmier Engineering Center, University of Georgia, Athens, Georgia 30602, (404) 542-2586

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